

Undergraduate Business Teaching and Library Opportunities at Georgia Tech

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Abstract

This study investigates the instruction support needs for undergraduate business classes at the Scheller College of Business at the Georgia Institute of Technology (Georgia Tech). Ten faculty members shared their thoughts and needs on course content, classroom technologies, pedagogies, collaboration, and possible tools for the future. In these discussions, we saw opportunities for the Georgia Tech Library through New Faculty Orientation, course reserves and interlibrary loan service, access to video and other online content, and integrating library information to Canvas, the new campus learning management system.

Introduction

The Scheller College of Business has a faculty body of 116 members, of which 27 are female and 89 are male. Students can select from eight academic areas in the Bachelor of Science in Business Administration degree program. The College offers two Minors: Leadership Studies and International Business, Language, and Culture. There are also several Minors available with other Colleges on campus – Engineering & Business, Computing & Business, Technology & Business – as part of the Steven A. Denning Technology & Management Program. In the fall 2018 semester, the Scheller College of Business enrolled 1206 undergraduate students and 883 graduate students. The undergraduate business program and the MBA program are nationally ranked, by *US News and World Report* and by *Bloomberg Businessweek*.

In addition to the core business curriculum for its degree programs, Scheller also dual-lists some of its classes with the College of Computing and College of Engineering, allowing students from other Colleges to take business courses. This is in step with the vision of the Association to Advance Collegiate Schools of Business (AACSB), to be a catalyst for innovation – “business schools will have to place an even greater emphasis on interdisciplinary collaboration across university campuses, particularly with schools of engineering and sciences” (AACSB, n.d.).

To better understand how academic research libraries can effectively support these robust undergraduate business programs and classes, the Georgia Tech Library (along with a cohort of 14 other academic libraries) conducted a research project on the support needs of undergraduate business instruction. This project began in fall 2018, and was coordinated and led by Ithaka S+R, a non-profit group working with academic libraries to research, evaluate, and provide strategic guidance in a range of areas (<http://sr.ithaka.org/our-work/>).

The data collection process was designed as one-on-one interviews between librarians and business instructors. These interviews were intended for understanding instructors’ practices and

challenges in teaching methods, course materials, and teaching tools. In addition, it served as an opportunity for instructors to share other aspects not mentioned in the questions.

The project team received Institutional Review Board (IRB) approval and launched the interview process in November 2018, with interviews starting in January 2019. Introductory emails about the project were sent to the Scheller College of Business Dean and to the Area Coordinators, and then customized recruitment emails were sent to 71 faculty members who had taught an undergraduate class in spring 2018, summer 2018, fall 2018, or were scheduled to teach in spring 2019 [see Appendices for email content]. The Business Reference Librarian also sent emails to 14 School of Economics faculty (we sought additional input, as some universities in the study include Economics in their business schools); however, we were unable to coordinate any interviews with that School's faculty. While several more faculty members expressed interest in participating in the project, in the end, they were unable to do so due to time conflicts. We conducted 10 interviews with undergraduate class instructors. Participating instructors were from several academic areas, and in different ranks.

The interview was designed by Ithaka S+R as an individual, semi-structured format. Each interview question had sub-questions geared towards different directions based on an interviewee's response [see Appendix 5 for interview questions]. For more information about the larger study by Ithaka S+R on Supporting the Changing Practices of Teaching in Business, please visit its website, at:

<https://sr.ithaka.org/blog/joining-together-to-support-undergraduate-instruction/>

Findings

Course Content

The first aspect instructors were asked about in our interviews was on the topic of course materials and content. They mentioned their experience with the library hosting course reserves, expectations for a searchable format for reserve material, instructional needs for audio and video, and for full-text content, and their concerns about textbook costs and actions taken to address it.

Full-text access

Traditionally, the Georgia Tech Library partners with instructors on managing and facilitating access to course reserve materials. In our interviews we heard from instructors about two aspects of concern: format and consistency.

In term of format, instructors are looking for full-text with searchability features – and, they prefer a digital version of a periodical article – not just the text. An article in HTML format “takes away the essence of the article”, per one instructor, who went on to comment “you find an article on *Businessweek*. Because you have a hard copy, you read it and it looks fantastic. Three pages”. But, in HTML format, “it’s 15 pages, double-spaced”. Further, a journal article that is scanned using optical character recognition (OCR) is essential; it allows a user to search for a key word or phrase.

In terms of consistency, instructors who work with the Library over time or across courses expect to gain access to the complete content of an item with the same format and features as they experienced previously. For example, one article might be full-text in more than one database; different sources can format the same content differently. This could be an issue for cross-listed courses. When staff members work on course reserves, they could inadvertently put on Reserve different versions of the same content for cross-listed classes taught by the same instructor.

Access to video

In addition to traditional course materials mentioned above, an emerging format that the instructors in these interviews are paying more attention to is video and audio content. One instructor explained that the reason he favored media content was that the students seem to be more responsive to it in terms of classroom discussion. Another instructor further explained that video content could connect to real-world cases: “There will be analysts talking about them. So I basically go and search on YouTube (to see) if there are analysts talking about that particular thing, or what is the market reaction and how these analysts are going to talk about this whole thing.”

Some instructors emphasized using short clips, such as YouTube videos and TED Talks, to explain a concept or introduce a topic quickly; others appreciated longer formats, such as documentaries, for in-depth discussion of an issue. Besides classroom teaching, one instructor also mentioned using video content for pedagogy training.

Instructors also further discussed some practical concerns about access to quality content and cost related to it: “what I really find lacking often is a way for us to be able to find relevant audiovisual material that would highlight some of the concepts”. In the past two decades, libraries have purchased videos in DVD format. Instructors in our interviews pointed out that the access to video content could be improved to allow instructors to play the content in class or students to view the content individually at the location of their choice. Because of that need, streaming services are ideal.

Textbook costs

One concern shared by multiple instructors was the cost of course materials. According to Affordable Learning Georgia, an initiative of the University System of Georgia (USG), textbooks and course materials average \$1,250 per student per year. Several instructors voiced their concerns about the burden textbook costs puts on students. One instructor mentioned that there has been less conversation in recent years regarding using paid textbooks as course materials, and further commented that the student might question the substantial cost. Some alternatives to textbooks are cases, periodical or journal articles, and free online resources. One instructor also uses a business best-seller as a text.

Institutional Collaboration

One interesting discussion that emerged during the interviews was instructors' thoughts about peer collaboration on course design and material sharing. At Scheller, the organizational structure for course design and content distribution is largely self-guided. Instructors independently determine what pedagogies and materials they want to use for their classes. We asked instructors if they shared their course materials outside of class; in general, they replied that they did not do so. Instructors explained that they considered every class is designed based on an instructor's personal preference, and that the design is hard to transfer to someone else's classroom. Yet, one instructor noted that "readings and cases go across courses".

While this open structure grants instructors the flexibility to update their pedagogies and materials as needed, a disadvantage is that it might overlook the significance of building a conversation platform for peer instructors to communicate on tools, resources, technologies, and pedagogies. An article in *Educational Research Review* on teacher collaboration revealed that peer collaboration at all levels of teachers brings benefits to the students, instructors as well as organizations (Vangrieken, 2015).

Some instructors mentioned that they sought information on course materials and course design from their peers within the College or through their academic network globally.

"I look at the syllabus for both undergraduate and MBA-level strategy curriculums at Harvard Business School, Sloan, Boston University, and Wharton, because I know people who are teaching courses at those places.... sort of talked to them about what cases worked well and how, then put together the course that way."

When discussing teaching materials, one instructor pointed out that he would like to know what cases other classes use – in order to avoid using them in his classes:

"Some cases can transcend boundaries and disciplines. So you want to make sure that some students who are taking two electives that use the same case don't have an advantage over those who are just taking one. So I just try briefly to find out."

And, one instructor would be interested in a "collaborative network...a place where one can share their syllabus". The instructor went on to note: "I know there are discussion groups in the business area, but there's nothing clearly related to curriculum development, project development, and things like that. A shared space or a discussion space – I mean, I don't know how that would work, but certainly I think there's an opportunity there to make things more shareable and friendly towards helping the learning process".

Pedagogy

Instructors at the Scheller College of Business apply different pedagogies in their classrooms, including case studies, flipped classroom, lectures, site visits, real-world projects, or using a mixture of these methods. Instructors' backgrounds as well as class level may influence the choice of pedagogy.

Case studies

Use of case studies is prevalent in business classes. According to *Bloomberg BusinessWeek* in 2015, 19 of the top 25 business schools in its ranking “reported that they use case studies as one of their main teaching tools”.

In particular, at Harvard Business School (HBS), 80 percent of class time is spent on case studies; at the University of Virginia’s Darden School, 75 percent of class time [note: both are graduate schools]. Recently, Dr. Jan Rivkin of Harvard Business School, in a video about the first Harvard-authored case (1921, The General Shoe Company), stated:

“The experiences that engage students, experiences that force them to think critically; to sort out important from unimportant facts, think for themselves, consider alternatives, listen to others, explain their views to others, make a decision -- those experiences will continue to deliver powerful learning. What I love about General Shoe is it allows students to practice a core skill of general managers. How do you go into an ambiguous situation and get to the bottom of it? That skill - the skill of figuring out a course of inquiry, to choose a course of action --- that skill is still as relevant today as it was in 1921.”

Eight instructors in our interviews use case studies in their classes. One instructor said “I typically try explaining some typical examples without the case...explaining that concept. Then I basically give a practical approach to it by picking up a case and sort of explaining that case – sort of translate that theory into that case an application-based thing. I think students like that approach than if I just give them raw theory.”

Among the instructors that use case studies, there are still pedagogical difference on class preparation. Some instructors prefer that students read materials before the class and come to class ready for discussion, while others prefer that a case is introduced in class. As one instructor explained: “if people know and read ahead of time, it actually makes the class more boring. So I like to keep them more on their toes.”

Real-world projects

Connecting to real businesses to contextualize classroom learning is another popular teaching method. According to University of Michigan’s Ross School of Business, “action-based learning deepens understanding of analytical concepts and tools, builds confidence in their use, and hones skills essential for their successful application (Datar, 2010).

The metro Atlanta area offers a unique advantage to connect to corporate clients. There are more than 10 Fortune 500 companies headquartered in the metropolitan area; and, there are branch offices or facilities of other major companies. Atlanta is also home to many significant private companies. With this active business scene, multiple instructors connected with corporations, and invited experts from industry to class as guest speakers to address specific issues. And, several instructors have incorporated real-world experience in their classes in the form of on-site visits to business operations and team projects on solutions to corporate problems. One instructor noted that “students seem to learn better when they’re actually applying what they are being taught”.

Technology for Instruction

Dual screens and clickers were the new technologies most often mentioned in our interviews. Using even these key technologies could potentially be an issue in a classroom setting - one instructor mentioned that sometimes the dual screens do not work. Another instructor listed some common issues: “At times there may be random glitches, shutdowns, and disruptions that are hard to control”. Yet, Scheller has an onsite IT unit in the building - “they will come here immediately”.

Besides all the technical challenges instructors face, it is also important to step back and see the distractions that some technologies could impose in classrooms. When asked for a “magic wand”, one instructor asked for nothing more than a bell:

*“I was just thinking that I want to get a bell... that rings at the beginning of the class.”
“Then you dim the lights. You set the mood.”*

“I think having some kind of transition, so the off time and the on time feels different. I think that actually helps students pay attention.”

Learning management system (LMS)

All instructors used a learning management system (LMS) to communicate with students on class-related information. The reason for using a single tool is that it simplifies information tracking and management. One instructor pointed out the importance of keeping all course information central to one platform:

“I used to have a website, but I’ve tried to keep everything on Canvas so that the touchpoints for students are as minimized and simplified as possible.” “You know, if they have ten electives during the year, they have to go to ten different websites.”

With the one-stop information shopping idea in mind, the LMS needs to be able to connect to different sources for course materials, facilitate instructor-student and student-student communication through announcement emails and other class content postings, set up class quizzes, and collect class participation information. The interview data showed a high satisfaction with Canvas, the LMS implemented at Georgia Tech this year. Instructors also noted that there are likely more functions in Canvas that they have not yet explored that could benefit their work (for example, TurningPoint and Turnitin are available in Canvas).

Student response systems

At Georgia Tech, TurningPoint has been one type of system in use by instructors. Students could purchase a clicker from the campus bookstore. Yet, one instructor noted that “sometimes students’ clickers or apps in TurningPoint just won’t work”. With Canvas (the new LMS at Georgia Tech), TurningPoint is now web-based and available within it. There are other response systems that are also web-based; notably Poll Anywhere and Socrativ. They are free, with advanced features for a fee. However, with these systems, students’ mobile devices would be on; distractions could occur.

Technological needs in the classroom and beyond

Instructors voiced the need for some tools for more effective teaching. Among the ideas are statistical tools to help gauge class participation, student progress, and student performance. One instructor mentioned that at a previous institution, there was “software where we can track participation. It makes it much easier.” Other instructors suggested:

“A visual Dashboard would be fantastic of how the course is progressing and how the students are doing - collecting informal feedback from students on what’s going well and what’s not going well.”

“A good recording system – where it’s easy for us to track grades – input grades for our students, disseminate grades for the students, and create snapshots. So, what are the averages? What is the mean? How is the progression? ”

Besides performance monitoring, multiple interviewees also shared their struggle with grading on subjective content and would like a tool for assistance:

“Is there a systematic way to judge students on these essay-type questions? And as a grader, I don’t have to spend too much time and still can learn what they are doing?”

One instructor suggested it would be helpful to have a teaching assistant with good fundamental knowledge to assist instructors with grading. Yet, another instructor wrestled with the fact that “It’s hard to give subjective-type questions, like an essay to your GRA”.

Other instructors suggested an innovative alternative: exploring new artificial intelligence tools that are already available, or in development, that can help students with writing before submitting a written assignment and instructors with grading on subjective content like essays:

“I think some programs can be done. I don’t know how good or bad that would be, but I think something like this can be created with probably the new generation of teaching and learning.”

Recommendations and Next Steps

Opportunities for the Library

Instructors' feedback during these interviews reveal challenges and opportunities for the Georgia Tech Library to further engage with instructors for teaching support.

Connect to instructors through new faculty orientation

According to their responses, the first opportunity for library engagement is when new instructors start their employment with the Institute. Several instructors noted that their exploration of teaching and research support units on campus - the Library, Center for Teaching and Learning, Office of Information Technology (OIT) - occurred through orientation when they started their appointments at Georgia Tech. To seize this opportunity to connect to instructors, the library should keep working on being a part of the Institute's New Faculty Orientation.

In the meantime, we suggest making orientation material available online – perhaps on the online research guide for Business & Management. It could highlight library collections and services, and also provide links to some of the LMS features. Instructors also expressed interest in connecting that information to Canvas, the LMS. It is hoped that the resources available online will provide instructors with an easy-to-reach window to connect to the library for their future teaching support.

Improve the experiences of services with online articles or scanned articles

Instructors' comments about using library collections included course reserves. Instructors expressed their hope for consistent access to course reserve materials, and digital versions (not just the full text) of periodical articles. Inconsistent formats of the same periodical or journal article could be discussed with library staff, who may not be aware that differences in "full text" exist among databases that include the text of an article.

Digital versions of some core trade periodical articles are now offered on the Flipster database; the Business Reference Librarian will inquire about the costs. One note: these database vendor contracts with publishers can expire; *Forbes* was available on one recently acquired database, but later removed. Current access to digital versions include: *Financial Times*, *Fast Company*, Inc., *MIT Technology Review*, and *Advertising Age*.

Improve access to video

A relatively new source in library collections is subscription video databases. The Georgia Tech Library has recently added Academic Video Online, Kanopy, and Films on Demand (Films on Demand offers a mix of different content: TED Talks, plus PBS videos and much more (approximately 40,000 titles, and almost 300,000 segments) - covering both academic and popular topics). These resources address the teaching needs by permitting classroom use. Yet, they have been so popular that many libraries have experienced budget problems because the annual cost is based on use. The Georgia Tech Library has moved to a mediated model with Kanopy (instructors request a title).

In an effort to raise awareness about the Library's video content, the Business Reference Librarian has added "Videos" as a tabbed page on the Business & Management online research guide, with details about accessing content. In addition, the Content Strategy librarian recently developed an online guide about the film/video online resources available. We hope to keep committing ourselves to selecting, acquiring and promoting video content to the Scheller College of Business.

Engagement for case studies or for real-world projects

For a case study, sometimes a professor wishes to provide students with additional readings on the topic beyond the content introduced by the instructor in class. To that end, the Business Reference Librarian could provide some assistance – perhaps through a course-specific online research guide with links to company profiles written during the time period of the case, or to news articles. Similar research guides could also be developed for specific real-world projects with targeted company information and news articles as additional information. These could be used early in the semester; for example, as background information for a team's first meeting with the client company. In general, although undergraduate business classes are highly individual instructor-based, we hope to provide customized research support.

Collaboration with other teaching support units on campus

In addition to focusing on library aspects, some of the interview responses about the LMS could also be shared with our peer instruction support units. Canvas, the new LMS, has features integrated in to the system that are of keen interest to instructors. For example, it includes the student response tool TurningPoint. And, although Canvas does not have an intelligent grading tool, its SpeedGrader could save instructors some time by adding comments and grades all in Canvas.

Affordable Learning Georgia's website links to key Open Educational Resources (OER), notably the MERLOT initiative from the California State University system (<https://www.merlot.org/merlot/>). We will share this and other resources with the Center for Teaching and Learning.

While we plan for near-future support for undergraduate business classes, we are keenly aware that undergraduate business teaching is constantly changing and impacted by the real business world. With that awareness, it is key to keep up our connections and conversations with the

instructors; and, adjust our collection, service model, and technology support to meet the needs of their future instruction design.

Next Steps

Building on the interviews we conducted and the findings we discovered in this project, we will share the report with stakeholders for further conversation. It is intended to encourage further feedback from undergraduate instructors at the Scheller College of Business regarding improving and updating our services. And, we plan to share this report with colleagues in the Georgia Tech Library so that we can effectively support undergraduate instruction.

Beyond this research effort, we also hope to keep communicating with undergraduate business instructors regarding their ongoing library service needs. Some instructors we reached out to expressed interest in participating, but were not able to do so due to time conflicts. We hope to reconnect with them in the near future to hear their thoughts.

Acknowledgements

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References

- AACSB (n.d.). A Collective Vision for Business Education. Retrieved from <https://www.aacsb.edu/vision>
- Affordable Learning Georgia (2018, February 15). *University System Saves Students More Than \$18 Million a Year in Free Textbooks* [Press Release]. Retrieved from https://www.usg.edu/news/release/university_system_saves_students_more_than_18_million_a_year_in_free_textbo/
- Datar, S. M., Cullen, P. G., & Garvin, D. A. (2010). *Rethinking the MBA : Business Education at a Crossroads*. Boston, Mass: Harvard Business Review Press. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=nlebk&AN=674985&site=ehost-live> [EBSCOhost Ebook Subscription Harvard Business Review Press]
- Fortune 500 (2019). *Fortune*. Retrieved from <https://fortune.com/fortune500/2019/search/?hqcity=Atlanta>
- Levy, F. (2015). Harvard's Monopoly On the Case Study. *Bloomberg Businessweek*, (4422), 44. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=bft&AN=102007792&site=ehost-live>
- MERLOT (n.d.). Retrieved from <https://www.merlot.org/merlot/>
- Reich, R. (n.d.). The Socratic Method: What it is and How to Use it in the Classroom. *Tomorrow's Professor Postings*. Retrieved from <https://tomprof.stanford.edu/posting/810>
- Rivkin, J. (n.d.). *Celebrating General Shoe Company, the Inaugural HBS Case*. Retrieved from <https://www.hbs.edu/mba/academic-experience/Pages/the-hbs-case-method.aspx#popup>
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology. *Handbook of qualitative research*, 17, 273-85.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research*. Sage publications.
- Vangrieken, K., Dochy, F., Raes, E., & Kyndt, E. (2015). Teacher collaboration: A systematic review. *Educational research review*, 15, 17-40.

Appendices

Appendix 1 – Scheller College of Business – brief history ; LMS at Georgia Tech

Appendix 2 – Introductory email to Area Coordinators at the Scheller College of Business

Appendix 3 - Recruitment email, approved by IRB

Appendix 4 - Consent Form

Appendix 5 - Semi-Structured Interview Guide

Appendix 1

Scheller College of Business history:

Georgia Institute of Technology was founded in 1885. In 1912, the School of Commerce was created; in 1934, an Industrial Management program was started. By 1970, a PhD program was established. For a number of years, it was a School, and then a College. Later, it was a School within a College (the College included economics as well as international affairs and policy). It became the College of Management in 1999. In 2003, the new building opened in Technology Square, in Midtown Atlanta. In 2011, degree names were changed at the undergraduate level from a Bachelor of Science in Management to a Bachelor of Science in Business Administration. In 2012, alumnus Ernest Scheller Jr. donated \$50 million. The College was renamed the Scheller College of Business.

Websites for information on the Scheller College of Business:

<https://lite.gatech.edu/> [enrollment statistics]

http://scheller.gatech.edu/about_us/overview.html

https://web.archive.org/web/20130811105757/http://scheller.gatech.edu/about_us/overview.html

<https://www.scheller.gatech.edu/degree-programs/undergraduate/courses-curriculum/minors.html>

<https://www.scheller.gatech.edu/centers-initiatives/technology-management-program/index.html>

Learning Management System (LMS) at Georgia Tech

In 2019, a new LMS was implemented on campus – Canvas. It replaced an open source platform (Sakai) that had been used for over ten years. Before Sakai, the LMS was WebCT, deployed in 1998. Canvas is supported by the campus-wide Office of Information Technology (OIT).

for Turnitin on Canvas: <https://canvas.gatech.edu/turnitin>

For TurningPoint on Canvas: <https://canvas.gatech.edu/canvas-plugins-turningpoint>

Canvas website at Georgia Tech: <https://canvas.gatech.edu/> - notes upcoming in-person workshops as well as online training.

Appendix 2

Introductory email to Area Coordinators at the Scheller College of Business

Subject: Research Project - Library

Dear Dr. _____ :

I am emailing you to introduce a new research project at the Georgia Tech Library: *Supporting the Changing Practices of Undergraduate Business Teaching*. This project is part of a bigger research project launched by Ithaka S+R, a Higher Ed research and consulting service. Georgia Tech and 13 other institutions are participating in the project to understand pedagogical support needs of faculty. The first project in the series will focus on the field of business and the instruction of undergraduates. Ximin Mi and I will be the project team members for Georgia Tech.

We invite faculty from the Scheller College of Business to participate by sharing their experiences in a one-hour interview with a GT librarian. Each interview would consist of nine questions, focused on teaching and developing an undergraduate course. It would be conducted in the faculty member's office (or other on-campus location). We would like to interview about 15-20 faculty. The interviews will take place from late November until early March.

The librarians will analyze information from the interviews and develop a local report. Ithaka S+R will review the interviews and findings and develop a capstone report, identifying recommendations for relevant stakeholders. These reports as well as results of the study will be made publicly available; and, also shared with the Scheller College of Business. The Georgia Tech Library will use the project to identify opportunities to improve and develop library services in support of undergraduate business instruction.

The Georgia Tech Library wanted to give you a heads-up that _____ [Area] faculty might be contacted to consider participating in the study.

Sincerely yours,

Patricia Kenly

Appendix 3

Recruitment email, approved by IRB

Subject: Georgia Tech's study on undergraduate business teaching

Dear Dr. [Last Name of Instructor] (note: use if instructor has a PhD ; salutation is Dear Professor [Last Name of Instructor] if it cannot be verified that instructor has a doctorate (honorary or earned)) :

Georgia Institute of Technology (Georgia Tech) is conducting a study on the teaching support needs of instructors in order to improve services for the Scheller College of Business. Would you be willing to participate in a one-hour interview by one librarian to share your unique experiences and perspectives on business undergraduate instruction and instruction support needs? Your interview will be audio-recorded for later analysis.

Our local Georgia Tech study is part of a larger suite of parallel studies with other institutions of higher education in the U.S., coordinated by Ithaka S+R, a not-for-profit research and consulting service. The information gathered at Georgia Tech will also be included in a landmark final report by Ithaka S+R and will be essential for Georgia Tech to further understand how the teaching support needs of Business instructors are evolving more widely. Both ITHAKA and Georgia Tech library will share the final report publicly.

If you have any questions about the study, please don't hesitate to reach out to one of the librarians conducting this research project: Patricia Kenly at patricia.kenly@library.gatech.edu and Ximin Mi at ximin.mi@library.gatech.edu.

Thank you so much for your consideration.

Sincerely,

Patricia Kenly, Business Reference Librarian & Gov Docs Coordinator, Georgia Tech

Ximin Mi, Data Visualization Librarian, Georgia Tech

Appendix 4

Consent Form

Project Title: Supporting the Changing Practices of Undergraduate Business Teaching
Investigators: PI: Patricia Kenly ; Co-PI: Ximin Mi – of the Georgia Tech Library Protocol H18409

This consent form asks you to participate in a research study.

Purpose: This research study is exploring the teaching practices of Business instructors who teach classes at the undergraduate level. The goals of the study are to understand their instruction processes and to develop more services and resources at the Georgia Tech Library in order to support them in their work. The study contributes to the wider fields of Library and Information Studies, Business, and Education by identifying the unique needs of Business instructors; and, by understanding the evolving relationships between libraries and undergraduate teaching support.

We expect to interview 15 to 20 instructors who have taught an undergraduate business class.

What you will be asked to do:

Your participation in the study involves an audio-recorded interview in your office (or another mutually agreed upon location on the Georgia Tech campus). You will be asked questions about your research practices and support needs as a Business instructor. The interview consists of 9 questions, and should not take longer than 60 minutes. Your participation is completely voluntary. You may end the interview or withdraw consent at any time for any reason.

Risks or Discomforts:

There are no known risks associated with participating in this study.

Benefits:

Subjects may experience benefits in the form of increased insight and awareness into their own research practices and needs.

Compensation to You:

There is no compensation for participation.

Confidentiality:

If you choose to participate, your name will not be linked to your interview responses. We do not include your name on any of the interview data and there is no link between this consent form and your responses.

The audio recording will only be used for transcription purposes and will be destroyed after transcription is completed. It will not be released in publications/presentations.

Results of this research study will be made public or published. Your identity will be protected to the maximum extent possible.

Study records will be kept confidential to the extent required by law. To make sure that this research is being carried out in the proper way, the Georgia Institute of Technology IRB may review study records.

Costs to You:

There are no costs to you, other than your time, for being in this study.

Questions about the Study:

If you have any questions about the study, you may contact Patricia Kenly, by email : patricia.kenly@library.gatech.edu; or, by telephone at: 404-894-1389.

Questions about Your Rights as a Research Participant:

- Your participation in this study is voluntary. You do not have to be in this study if you don't want to be.
- You have the right to change your mind and leave the study at any time without giving any reason and without penalty.
- You will be given a copy of this consent form to keep.
- You do not waive any of your legal rights by participating in the study.

If you have any questions about your rights as a research subject, you may contact Ms. Melanie Clark, Georgia Institute of Technology at (404) 894-6942.

If you sign below, it means that you are at least 21 years of age; you have read this consent form or have had it read to you; and, you voluntarily agree to participate in this research study.

Participant Name (printed)

Participant Signature

Date

Signature of Person Obtaining Consent

Date

APPENDIX 5

Semi-Structured Interview Guide

Background and Methods

1. Tell me about your experiences as a teacher [e.g., how long you've been teaching, what you typically teach, what you currently teach].
 - ❖ Does your teaching incorporate any particular teaching methods or approaches? [e.g., experiential learning, case method, design thinking, problem-based learning, flipped classroom]
 - ❖ Have you received any support/relied on others towards developing your teaching approach?
 - ❖ Are there any other supports or resources that you think would be helpful for you?
2. Do you currently teach more general research or study skills in any of your courses? [e.g., finding sources, evaluating sources, data literacy, financial literacy, critical thinking]
 - ❖ How do you incorporate this into your courses? Have you experienced any challenges in doing so?
 - ❖ Does anyone support you in doing so and if so how? [e.g., instruction classes offered through the library]
 - ❖ Are there any other forms of support that would be helpful in doing this?

Working with Materials and Content

3. What materials do you typically create in the process of developing a course? [e.g., syllabi, course website, online modules, lectures, assignments, tests]
 - ❖ How do you make these materials available to students?
 - ❖ Do you make these materials more widely available? [e.g., public course website or personal website, sharing via Listserv]
 - ❖ Have you experienced any challenges in creating and/or making these materials available?
 - ❖ Do you ever consult with others as part of creating and/or making these materials available?
 - ❖ Are there any other supports that could help you in creating and/or making these materials available?

4. Beyond the materials you create in the process of developing a course, what other kinds of content do students typically work with in your courses? [e.g., readings from textbooks or other sources, practice datasets, films]
- ❖ How involved are you in how this content is selected and/or created?
 - ❖ How do you make these materials available to students?
 - ❖ Do you make these materials more widely available? [e.g., public course website or personal website, sharing via Listserv]
 - ❖ Have you experienced any challenges in selecting, creating and/or making these materials available?
 - ❖ Do you ever consult with others as part of selecting, creating and/or making these materials available?
 - ❖ Are there any supports that could help you in selecting, creating and/or making these materials available?

Working with Tools

5. Have you considered using and/or are you currently working with data and/or analytics tools to understand and improve your teaching? [e.g., dashboard or an app through a course management system, early alert notification system on student performance via email]
- ❖ If no, why? [e.g., unaware of such offerings, current offerings are not useful, opposed to such offerings]
 - If a tool could be designed that leverages data (e.g. about students) in a way that would be helpful towards your teaching, what data would feed into this and how would this tool ideally work?
 - Do you have any concerns in relation to how this data is collected and/or leveraged (e.g. privacy)?
 - ❖ If yes, what data and/or tools have you used and how? To what extent was this useful?
 - Do you have any concerns in relation to how this data is collected and/or leveraged (e.g. privacy)?
 - What are some of the greatest challenges you've encountered in the process of using these tools?
 - Do you rely on anyone to support you in using these tools?
 - Are there any other forms of support that would help you as you work with these tools?

6. Do you rely on any other tools to support your teaching (e.g. clickers, smart boards)? If so,
 - ❖ What are some of the greatest challenges you've encountered in the process of using these tools?
 - ❖ Do you rely on anyone to learn about and/or support you in using these tools?
 - ❖ Are there any other forms of support that would help you as you work with these tools?

Wrapping Up

7. If there was a magic wand that could help you with some aspect of your teaching [beyond giving you more money, time, or smarter students], what would you ask it to do for you?
8. Are there any ways that the library or others on campus have helped you with your teaching in ways that have not yet come up in this interview?
9. Are there any issues relating to your experiences teaching that you think that librarians and/or others on campus who support you and your students should be aware of that have not yet come up in our discussion? [e.g. on the role of the library in supporting teaching, what makes teaching in your specific area of Business more widely that warrants unique support]